

Wolff Law Offices, PLLC
Response and Amendment

Appl. Ser. No. 10/657,188
Attorney Docket No.: Legare-PAUS0004

providing selected individual cylinder injection probe events, after a predefined number of normal fuel injection events, to have corrections in magnitudes of fuel quantity to counteract effects of load changes; and

adjusting the corrections in magnitudes of fuel quantity to selected individual cylinders, based upon the oxygen sensor feedback of exhaust gases' conditions resulting from prior said probe events by said sensor feedback sampling at predetermined times so as to cause the exhaust gases' conditions to cycle about a defined control point at an earlier time following the load change.

13. (Previously Presented) A method of early cycling an oxygen sensor's output, during non-stoichiometric transient engine load change conditions, including the steps of:

providing a catalyst for reducing exhaust gas emissions;
providing a switching oxygen sensor for detecting exhaust gases' rich or lean conditions;
causing estimated fuel changes into selected individual cylinders; and
modifying subsequently said estimated fuel changes using a successive approximation approach based upon feedback determined by sampling the oxygen sensor's output during predetermined time periods.

14. (Currently Amended) ~~A method of fuel control for correcting fuel quantities delivered to individual cylinders prior to a detectable engine operating condition change so as to reduce undesired exhaust gas-air fuel deviations from a desired control point, including the steps of:~~
~~— providing a catalyst for reducing exhaust gas emissions;~~